

# Indiana's Response to Intervention Academy



Assessment/Progress Monitoring & Data-based Decision Making:  
In Progress

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# Characteristics of schools for whom this session is most appropriate:

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- ❑ Schools that are collecting universal screening and/or progress monitoring data and are looking for ways to manage the data.
- ❑ Schools that are setting goals for student growth as part of instructional and intervention plans.
- ❑ Schools that are beginning to use graphs to visually display universal screening and progress monitoring data.

# Presentation Outcomes:

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- ❑ Overview of data management systems and graphing tools.
- ❑ Overview of goal setting for progress monitoring.
- ❑ Considerations in developing and reading graphs.

# Essential Components of Response to Intervention

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- ❑ Implementation of scientifically-based Curricula, Instruction, Intervention, and Extensions
- ❑ System of Assessment and Progress Monitoring
- ❑ Data-based Decision Making
- ❑ School context of strong leadership, cultural competency and responsiveness, and school/family/community partnerships.

# Essential Components of Response to Intervention

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# Integrating a System of Assessment/Progress Monitoring & Data-based Decision Making

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- ❑ Supports the ongoing assessment of student progress (at necessary frequencies),
- ❑ Emphasizes a systematic, problem solving approach to interpreting and using assessment data,
- ❑ Informs decisions about effectiveness of instruction and intervention (“responsiveness” or “adequate progress”)

# Problem Solving Method

## Defining the Problem:

*“Is there a problem”?*

*“What is it”?*

*“How significant”?*



## Analyzing the Problem:

*“Why is it happening”?*



## Determining What to Do:

*“What shall we do about it”?*



## Implementing the Plan with Fidelity



## Evaluating Progress:



*“Did the plan work”?*

*“What needs to happen next”?*

# Determining Responsiveness

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- ❑ Determining responsiveness or “adequate progress” requires
  1. Goal or Criterion
  2. Student progress data
  3. Timeline (e.g., number of weeks)
  4. Interpretation of progress monitoring data, “decision rule”



# Comprehensive & Coordinated Early Intervening Services

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- ❑ 511 IAC 7-40-2(f) refers to a process that assesses a student's response to scientific, research based interventions and requires written notification containing information about
  - the interventions/services to be provided,
  - the student data to be collected,
  - parental rights to request an evaluation, and
  - schools responsibility to initiate a referral if the student doesn't make adequate progress after an appropriate period of time.

# Considerations in Setting Goals for Progress Monitoring

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- ❑ What is the expected level of performance?
  - National, state, or local benchmarks
  
- ❑ What is the expected or typical rate of improvement?
  - National, state, or local data
  
- ❑ What is the current performance level of the student(s)?
  
- ❑ Is the comparison group similar to our students?

# Sample Fluency Benchmark

**AIMSweb® Growth Table**  
Reading - Curriculum Based Measurement  
Multi-Year Aggregate

		Fall		Winter		Spring		
Grade	%ile	Num	WRC	Num	WRC	Num	WRC	ROI
1	90	12091	49	53350	78	55121	107	1.6
	75		22		47		80	1.6
	50		8		24		52	1.2
	25		2		13		28	0.7
	10		0		6		15	0.4
	Mean		18		34		57	1.1
	StdDev		25		31		37	0.3
2	90	48961	103	46244	129	52326	144	1.1
	75		79		103		119	1.1
	50		54		77		92	1.1
	25		27		52		68	1.1
	10		14		25		41	0.8
	Mean		56		78		93	1.0
	StdDev		35		39		40	0.1
3	90	44976	131	43192	148	49174	163	0.9
	75		103		124		139	1.0
	50		77		95		111	0.9
	25		49		66		82	0.9
	10		30		41		52	0.6
	Mean		78		96		110	0.9
	StdDev		39		42		43	0.1

ROI is Spring Score minus Fall Score (or Winter minus Fall) divided by 36 weeks (or 18 weeks)

# Goals for Rate of Improvement (ROI)

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## Reading CBM

Grade	Reasonable	Ambitious
1	2.0	3.0
2	1.5	2.0
3	1.0	1.5
4	0.85	1.1
5	0.50	0.85
6	0.30	0.65

## Math CBM

Grade	Reasonable	Ambitious
1	0.30	0.50
2	0.30	0.50
3	0.30	0.50
4	0.70	1.15
5	0.75	1.20
6	0.45	1.00

# Collecting Student Progress Data

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- ❑ Often referred to as “progress monitoring” and similar to formative assessment
- ❑ Frequency depends on the student,
  - e.g. for those at goal/criterion level 3-4 times per year;
  - for those in need of targeted interventions 1-2 times per month;
  - for those in need of intensive interventions 2-4 times per month
- ❑ Important to consider the appropriateness of the assessment tool, technical properties, culturally and linguistically appropriate

# Managing Assessment and Progress Monitoring Data: Technology-based Systems

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- ❑ “Instructional Management and Assessment Systems” provide for ongoing formative assessment of student progress
- ❑ Developed in two general forms:
  - Pre-made assessments
    - ❑ Examples: AIMSweb, computerized NWEA, Wireless Generation’s DIBELS and Texas Primary Reading Inventory
  - Item banks for computer- or manual-generated assessments
    - ❑ Examples: McGraw Hill’s Yearly Progress Pro, Renaissance Learning, PLATO
- ❑ Vary in frequency of assessment, ranging from periodic to continuous

# Benefits of Using Technology for Assessment and Data-Based Decision Making:

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- ❑ Frequent monitoring of student progress,
- ❑ Quick access to assessment data,
- ❑ Efficient management, graphing, and reporting of data,
- ❑ Increased reliability and accuracy of data.

# Examples of Instructional Management and Assessment Systems

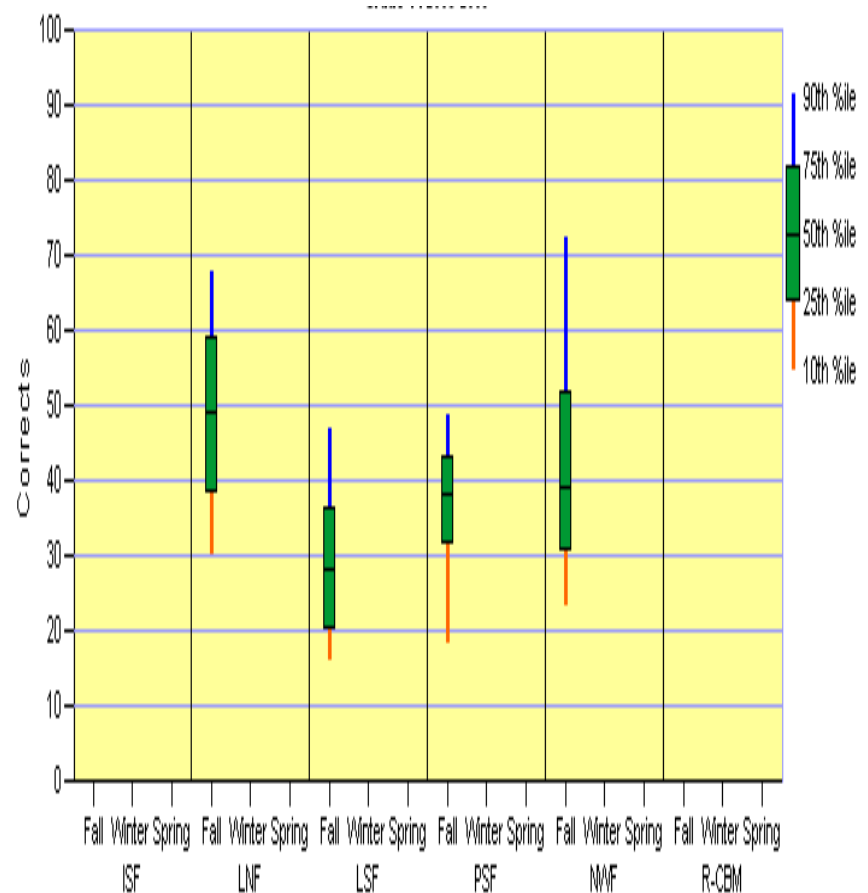
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Product	Website
Aimsweb	<a href="http://www.aimsweb.com">www.aimsweb.com</a>
mCLASS	<a href="http://www.wirelessgeneration.com">www.wirelessgeneration.com</a>
Benchmark Assessment System	<a href="http://www.tungstenlearning.com">www.tungstenlearning.com</a>
STAR Math, STAR Reading, STAR Early Literacy, AssessmentMaster	<a href="http://www.renlearn.com">www.renlearn.com</a>
Visit the National Center on Student Progress Monitoring for a review and evaluation of assessments at <a href="http://www.studentprogress.org">www.studentprogress.org</a>	



# Summarizing and Graphing Data to Be Used by Teachers, School Teams, and Teachers:

- Useful at all levels – school, grade, small groups, and individual students
- Critical for highlighting the important information hidden in the numbers

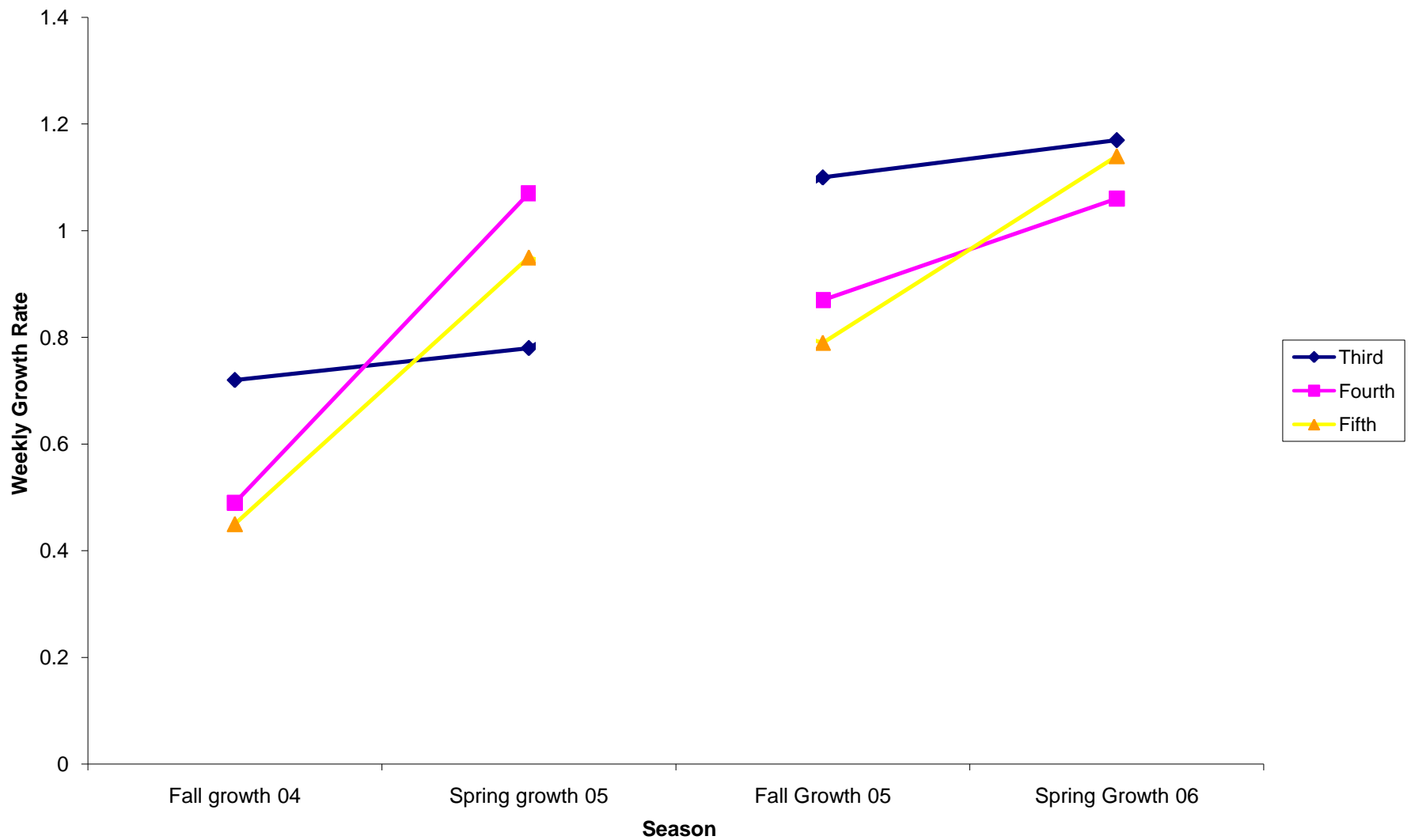


# What do you see in the following graphs?

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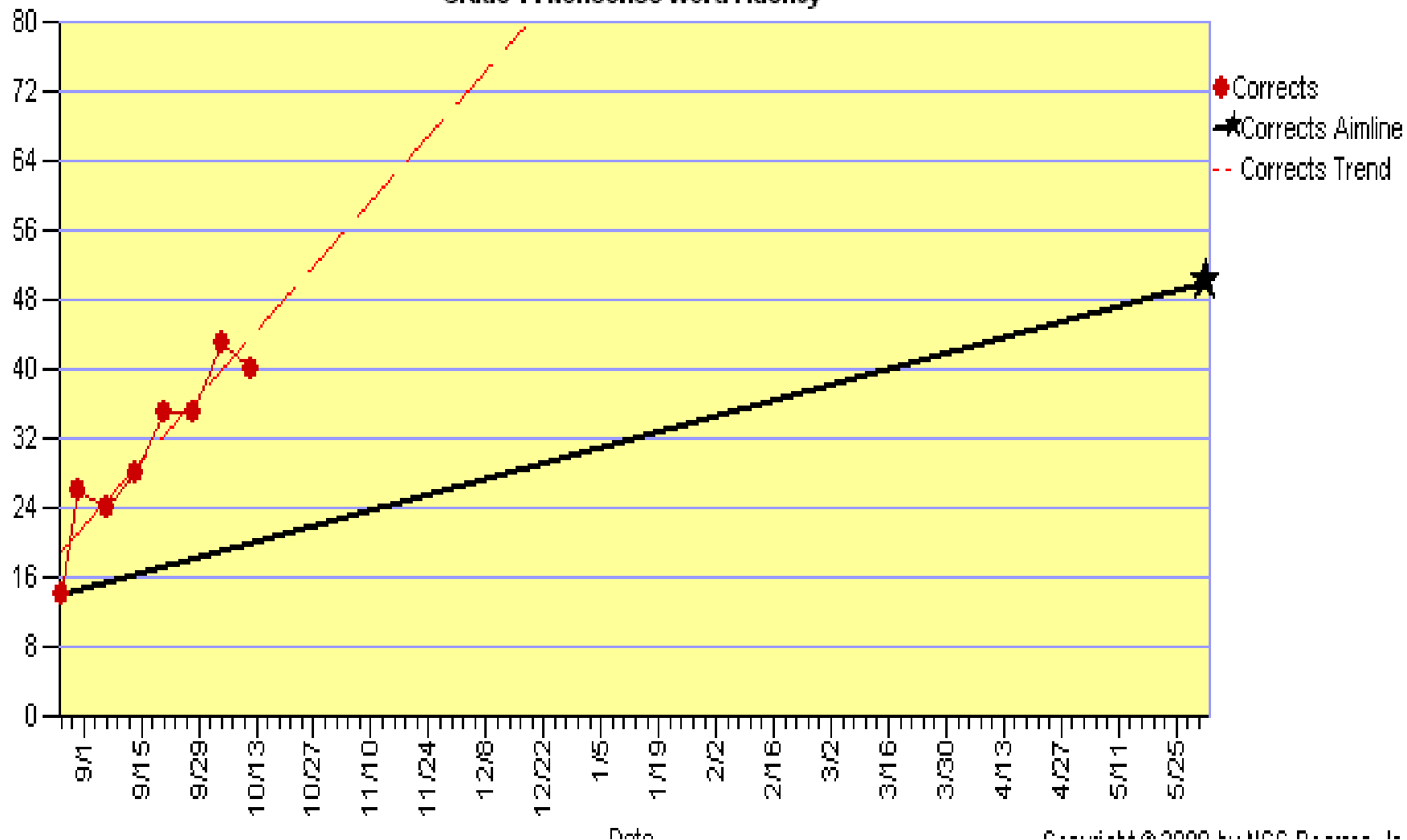
- ❑ What key information stands out?
- ❑ When would this graph be used?
- ❑ What's the appropriate audience?

**R-CBM Weekly Growth Rates by School Year and Grade**

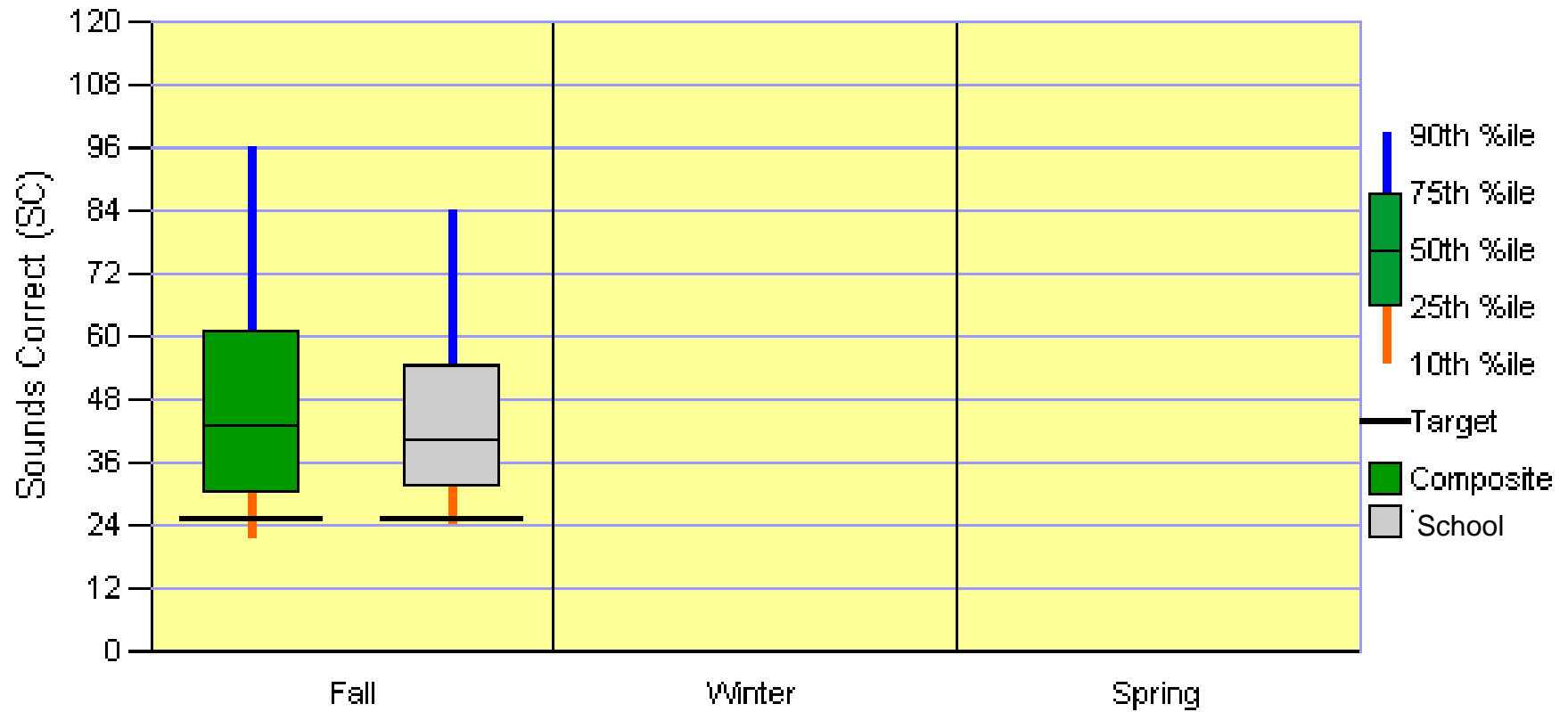


# Jacob Jones, Progress Monitoring Data

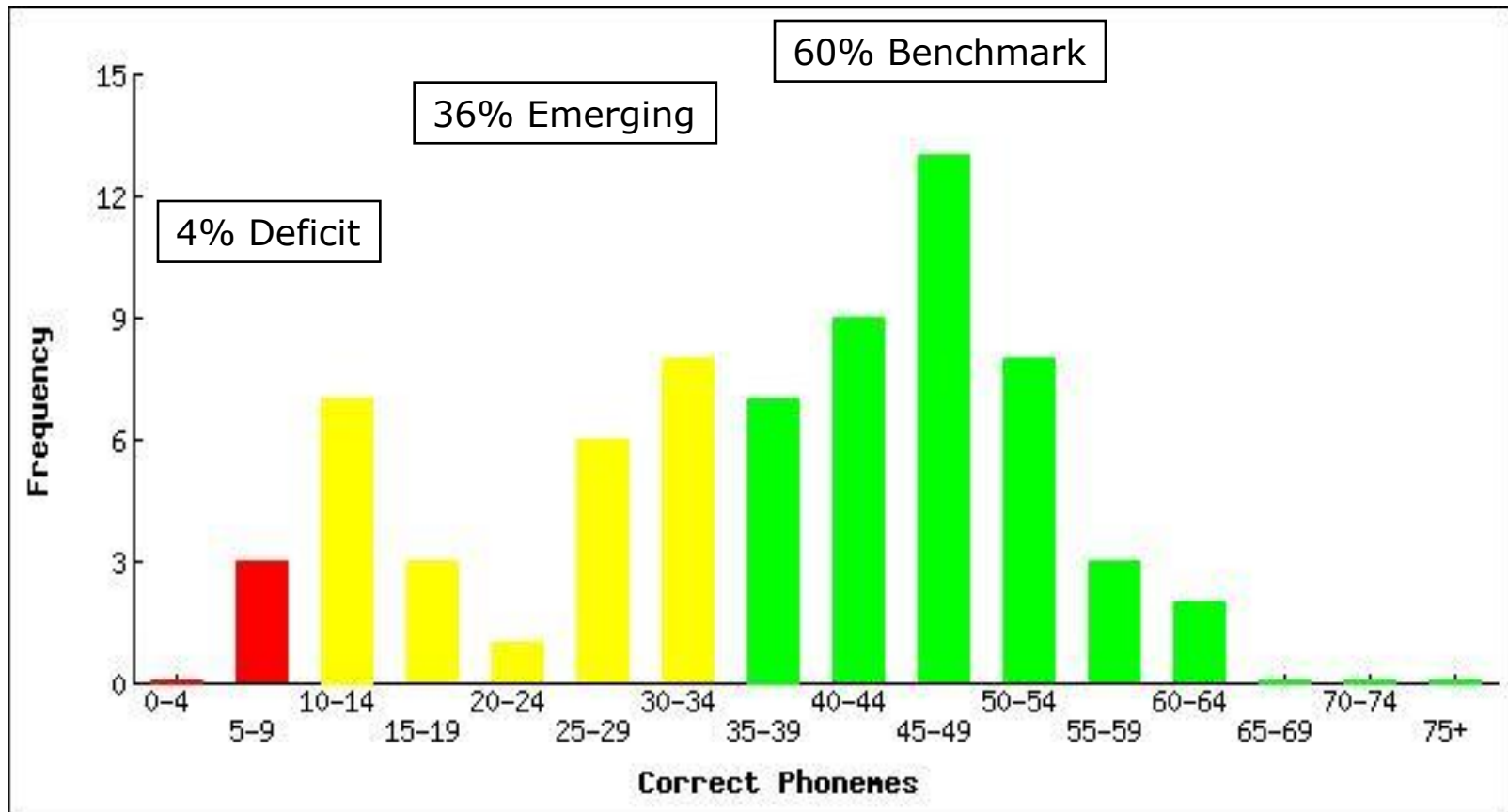
## Grade 1 : Nonsense Word Fluency



## Nonsense Word Fluency



# Phoneme Segmentation Fluency - 1<sup>st</sup> grade



**Benchmark Goal:** The benchmark goal is for all children to have established phonemic awareness skills of 35 to 45 on Phoneme Segmentation Fluency by the end of Kindergarten or the beginning of First Grade.

**Beginning Status:** In the beginning of First Grade, students should have 35-45 sounds per minute on Phoneme Segmentation Fluency.

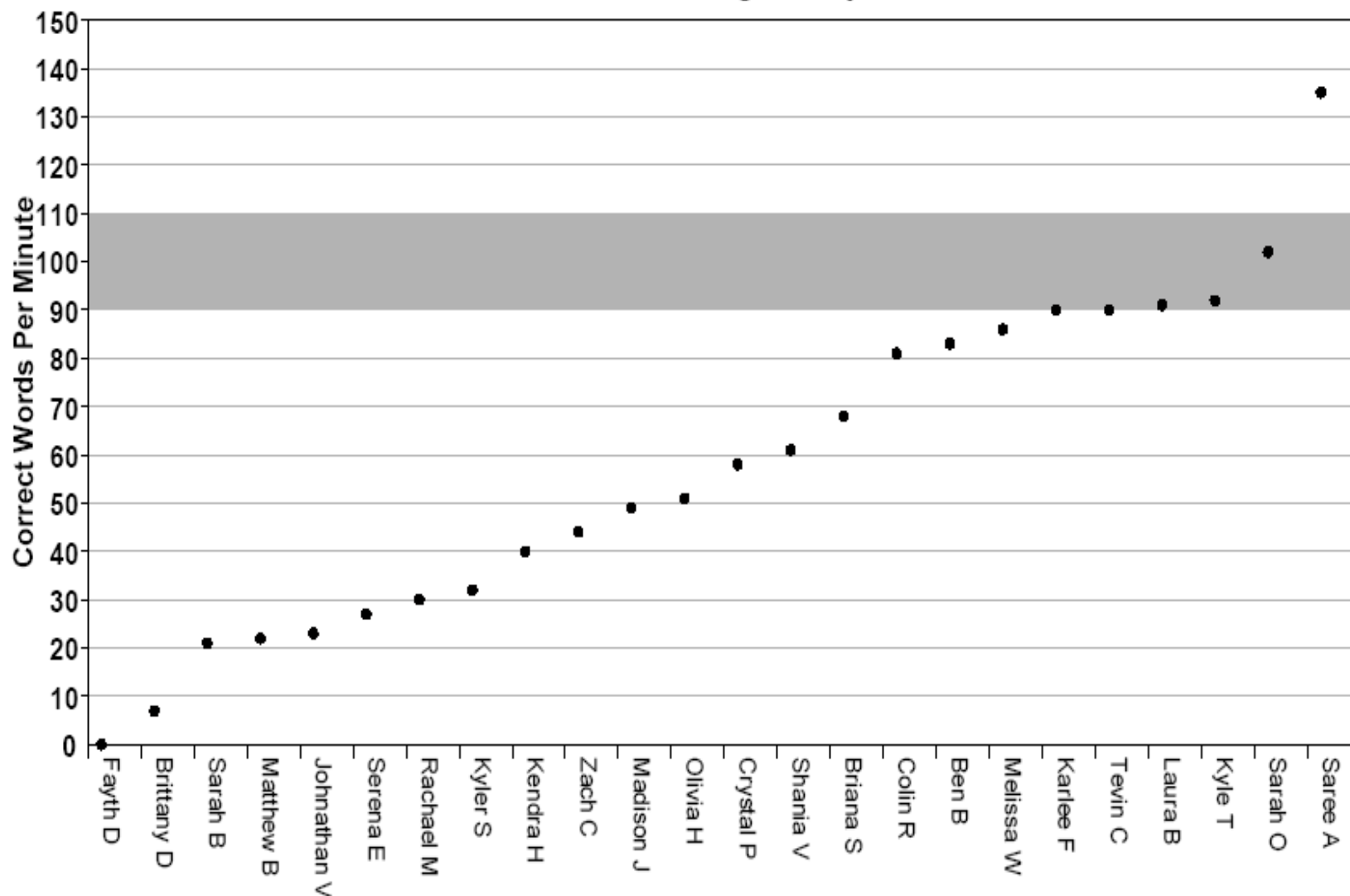
## Second Grade Class Progress Graph

District: Sample School Corporation  
 School: Great Elementary School  
 Date: 2006-2007  
 Class: Jones, Beth- 2

● Beginning ▲ Score Above Graph Bounds  
 ■ Middle ▲ Score Above Graph Bounds  
 ◆ End ▲ Score Above Graph Bounds

Benchmark Goal: 90 at the end of Second Grade

### Oral Reading Fluency



# Considerations when developing graphs (Hood & Dorman, 2008)

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- ❑ Audience – interests, knowledge, skill
- ❑ Message –highlight the most important information; consider using color, text, arrows, bold font, etc.
- ❑ Graph type –
  - Bar graphs – categorical data, comparisons between groups
  - Line graphs – continuous data, growth over time
  - Scatter plots – relationship between two variables (e.g., CBM data and ISTEP scores)
- ❑ Scaling of the graph – start value for the y axis, increments for x and y axis
- ❑ Printing and displaying the data



# Resources on Summarizing and Using School Data

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- ❑ School Data Tutorials, web-based resource from the Center for the Advanced Study of Technology Leadership in Education (CASTLE), University Council for Educational Administration at the University of Minnesota.

<http://www.schooldatatutorials.org>

- ❑ IRIS Center at Vanderbilt University, training modules and tools.

<http://iris.peabody.vanderbilt.edu/index.html>

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- ❑ ChartDog; available from Intervention Central at <http://www.interventioncentral.org/>
- ❑ Variety of excel documents for graphing and summarizing data; available from Measured Effects at <http://www.measuredeffects.com/index.php?id=23>
- ❑ Easy CBM; available at <http://www.easycbm.com/>
- ❑ Data Management and Graphing Excel tool; available at [http://iris.peabody.vanderbilt.edu/rti04\\_alltogether/rti04\\_02\\_link\\_elements.html](http://iris.peabody.vanderbilt.edu/rti04_alltogether/rti04_02_link_elements.html)

# References

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Hood, C., & Dorman, C. (2008). Best practices in the display of data. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology V, (vol. 6)*, p. 2117-2133. MD: National Association of School Psychologists (NASP).

Ysseldyke, J., & McLeod, S. (2007). Using technology tools to monitor response to intervention. In S. Jimerson, M. Burns, & A. VanDerHeyden (Eds.), *Handbook of Response to Intervention*. NY: Springer.

Silbergglitt, B. (2008). Best practices in using technology for data-based decision making. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology V, (vol. 5)*, p. 1869-1884. MD: NASP.

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